

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Charles E. Price)	
Serial No.:	10/627,166)	
Filed:	July 25, 2003)	Confirmation No. 2507
)	
Group Art	1793)	
Unit:)	
Examiner:	Paul D. Marcantoni)	
)	
Attorney	946478-263692)	
Docket:)	
)	
Title:	CEMENTITIOUS)	
	COMPOSITIONS AND)	
	METHODS OF MAKING)	
	AND USING)	

Commissioner for Patents
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APPELLANTS' REPLY BRIEF

This Reply Brief follows the format provided for in revised 37 CFR 41.41.

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STATEMENT OF ADDITIONAL FACTS

1. In the Examiner's Answer dated December 14, 2009 (hereinafter referred to as the "Examiner's Answer"), the Examiner states as follows:

(i) "[t]he amount of coarse aggregate and fine aggregate in relation to one another and the total composition and the amount of water which is critical is missing in all claims. Thus, appellant cannot rely on their compressive strength values as high as they are because their claims are not commensurate in scope with the missing critical components of the invention providing them those unexpected strength properties." (See Examiner's Answer, Paragraph bridging pages 7-8); and

(ii) "The appellant then states that the examiner has improperly *refused* to consider evidence of unexpected results located in the specification of the application. How can he consider unexpected results when the claims are devoid of the critical elements or components to provide such unexpected results such as compressive strength? In rebuttal, appellant should revisit what was just stated by the examiner. 'While it is true that claims may be read in light of the specification, it is improper to read the limitations of the specification into the claims.' Appellant totally ignores what the examiner is saying. Appellant cannot read missing limitations such as specific amounts of water and specific amounts of

coarse bottom ash and specific amounts of bottom ash which are nowhere to be found in any claim and then claim their high compressive strength. The case law stated makes it clear that appellant cannot do so but needs to provide all critical amounts and limitations *in their claims*. The examiner is not refusing to consider appellant's alleged unexpected results or evidence either. He is simply telling the appellant as he has done since early in prosecution that if you wish to claim unexpected results the scope of what is being claimed must be *commensurate* in scope with what is critical to achieve those unexpected results and all those components must be in the claim. How does one obtain appellant's compressive strength when the amount of water is not even provided that is critical?" (*See Examiner's Answer, Page 8, second paragraph*).

2. The specification discloses the compressive strengths of seven (7) specific cementitious compositions that materially coincide to the particle distributions recited in Claims 1, 5, 26, 27, 33, 34, 36, 37, and 39-41 and that have compressive strengths much higher than the structural products resulting from the comparable cementitious compositions disclosed in Nisnevich. (*See, e.g., Application, Figures 7A and 7C*).

3. The specification discloses that the amount of water used to obtain the disclosed compressive strengths can range from 1.125 gallons of water per cubic foot of cementitious composition to about 1.96 gallons of water per cubic foot of cementitious composition. (*See* Application, Page 12, Paragraph 50).

4. The specification discloses the specific amounts of water used to obtain the disclosed compressive strengths for the sample mixtures disclosed in Figures 7A, 7B, 7C and 8A of the application.

ARGUMENTS

1. The Examiner Erred In Not Considering Appellants' Evidence of Secondary Considerations.

In the Examiner's Answer, the Examiner admits that he has not considered Appellants' evidence of unexpected results set forth in the specification. (*See* Examiner's Answer, Page 8, Second Paragraph). The Examiner argues for the first time in the Examiner's Answer that he is not obligated to consider such evidence for the following two (2) reasons:

- (1) "[t]he amount of coarse aggregate and fine aggregate in relation to one another and the total composition and the amount of water

which is critical is missing in all claims. Thus, appellant cannot rely on their compressive strength values as high as they are because their claims are not commensurate in scope with the missing critical components of the invention providing them those unexpected strength properties.” (*See Examiner’s Answer, Pages 7-8*).

(2) To do so would result in the Examiner reading “the limitations of the specification into the claims.” (*See Examiner’s Answer, Page 8, Second Paragraph*).

Appellants contend that the Examiner has misapplied the prevailing authorities on objective evidence of nonobviousness. The arguments set forth herein are new arguments not previously considered by the Examiner.

The Federal Circuit has held that objective evidence of nonobviousness must be reasonably commensurate in scope with the claims which the evidence is offered to support. *See In re Grasselli*, 713 F.2d 731, 743; 218 U.S.P.Q. 769, 777 (Fed. Cir. 1983); *see also In re Kulling*, 897 F.2d 1147, 1149, 14 USPQ2d 1056, 1058 (Fed. Cir. 1990). This requirement (hereinafter referred to as the “commensurate-scope requirement”) prevents broad claims from being allowed based on evidence of nonobviousness where such evidence only applies to narrow

embodiments of the claimed invention. For example, in *Grasselli*, the Federal Circuit held that an obviousness rejection based on the prior art was not overcome because, while the appellants' claims were broadly directed to a catalyst with "an alkali metal," the evidence of unexpected results presented was limited to sodium only. *Grasselli*, 713 F.2d at 743; 218 U.S.P.Q. at 777.

Notwithstanding the Examiner's assertions to the contrary, the Federal Circuit has not held that the "commensurate-scope requirement" equates to a requirement that allegedly "critical" aspects of the unexpected properties or results must be recited in the claims (hereinafter referred to as the "criticality requirement"). Indeed, Appellants note that the Examiner has not cited a single authority to support this asserted "criticality requirement". Lacking such support, and in an apparent effort to explain away the Examiner's failure to consider the objective evidence of secondary considerations contained in Appellants' specification, as required by the Federal Circuit's holding in *In re Soni*, 54, F.3d 746, 750, 34 USPQ2d 1379, 1382 (Fed. Cir. 2003), the Examiner instead cites three (3) cases holding that it is improper to read limitations from the specification into the claims when construing the claims. However, the authority cited by the Examiner concerning claim construction is simply inapposite to determining

whether a *prima facie* case of obviousness has been rebutted by evidence of secondary considerations.

2. Appellant's Evidence of Secondary Considerations Is Reasonably Commensurate in Scope with the Claims.

Regarding the Federal Circuit's "commensurate-scope requirement," Claims 1, 5, 26, 27, 33, 34, 36, 37, and 39-41 of the present application are reasonably commensurate in scope with the evidence of unexpected results presented in the specification. In particular, the specification discloses the compressive strengths of seven (7) specific cementitious compositions that materially coincide to the particle distributions recited in Claims 1, 5, 26, 27, 33, 34, 36, 37, and 39-41 and that have compressive strengths much higher than the structural products resulting from the comparable cementitious compositions disclosed in Nisnevich. (*See, e.g.*, Application, Figures 7A and 7C). Indeed, Appellants note that the Examiner acknowledges the significance of these compressive strengths when he states "appellant cannot rely on their compressive strength values as high as they are...." (*See Examiner's Answer, Page 8, Line 1*) (Emphasis Provided).

Additionally, Appellants submit that, contrary to the Examiner's assertions, the claims of the present application *do recite* the amount of coarse aggregate and

fine aggregate in relation to one another and the total composition. In this regard, Claims 1, 5, 26, 27, 33, 34, 36, 37, and 39-41 specifically recite that the first portion (the “fine aggregate” having a particle size of less than about .006 inches) and second portion (the “course aggregate” having a particle size between .75 inches to .003 inches) must be mixed together in amounts such that approximately fifty percent of the resulting mixed bottom ash has a particle size less than about .012 inches. In addition, the claims specifically recite that the mixed bottom ash is combined with cement in a ratio between 2:1 and 2:3 by weight.

Regarding the amount of water necessary to obtain the compressive strength results disclosed in the specification, the specification discloses that the amount of water can range from 1.125 gallons of water per cubic foot of cementitious composition to about 1.96 gallons of water per cubic foot of cementitious composition. (*See* Application, Page 12, Paragraph 50). Specific amounts of water are also disclosed for the sample mixtures disclosed in Figures 7A, 7B, 7C and 8A of the application. Regarding the claims, independent Claim 41, which is directed to a method of making a structural product, recites “mixing an effective amount of water with the cementitious composition....” The remaining claims, which are directed either to the cementitious composition itself or a method of

making the cementitious composition, do not recite a specific amount of water as such claims are not directed to the resulting structural product.

Under the Federal Circuit's "commensurate-scope requirement", the claims need not contain each and every specific value that is incorporated in the evidence of nonobviousness; rather, the claims merely need to be reasonably commensurate in scope with such evidence. For the foregoing reasons, Appellants respectfully submit that this requirement has been met.

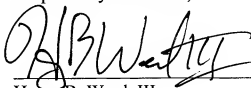
With respect to the other arguments presented in the Examiner's Answer, Appellants respectfully disagree for the reasons set forth in Appellants' Brief.

CONCLUSION

For the reasons state above, Appellants respectfully submit that the rejections standing in this application are improper. Therefore, Appellants respectfully submit that Claims 1, 5, 26, 27, 33, 34, 36, 37, and 39-41 are in condition for allowance. Accordingly, reversal of the rejections of Claims 1, 5, 26, 27, 33, 34, 36, 37, and 39-41 is respectfully requested.

Respectfully submitted,

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